Documentazione Tecnica
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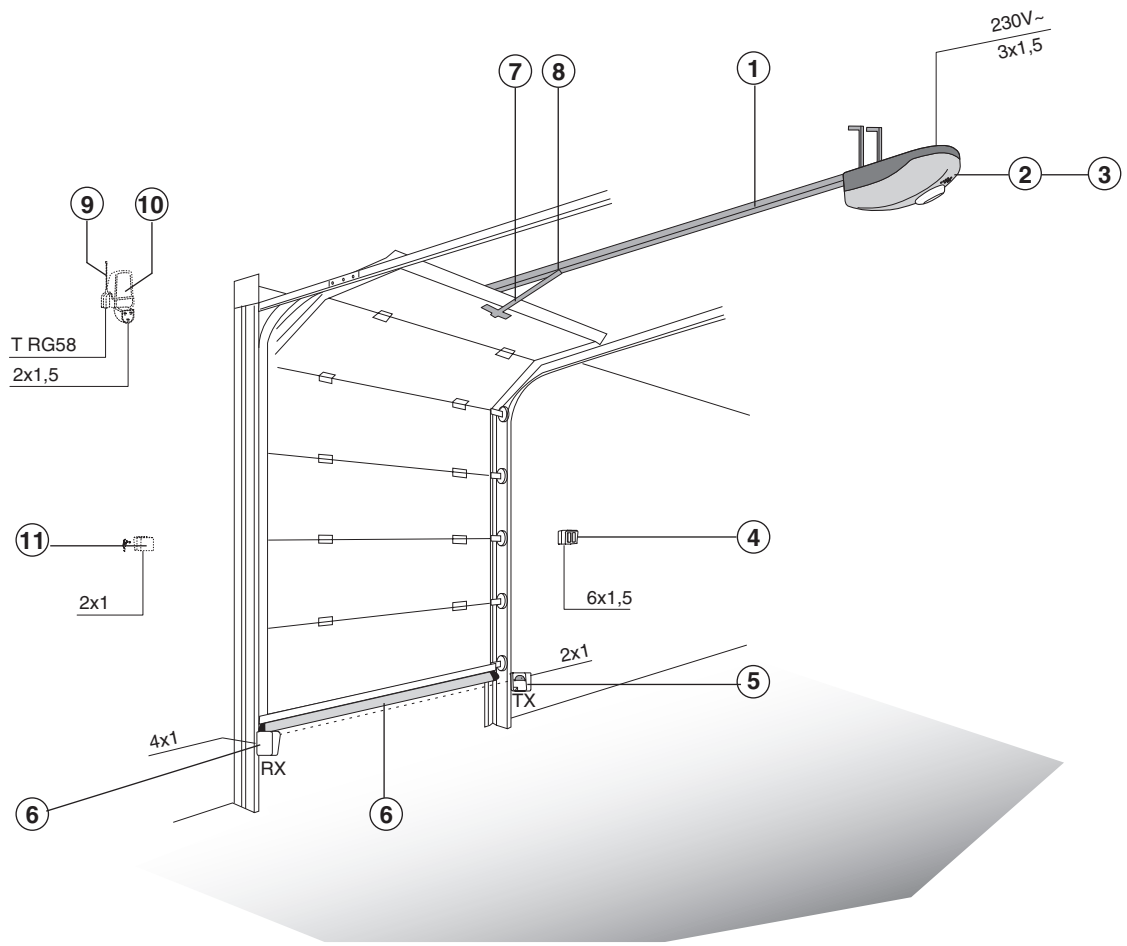
CANCELLI AUTOMATICI

V900E

AUTOMATIC TRACTION SYSTEM FOR OVERHEAD AND SECTIONAL DOORS

Standar installation



1 - VER unit
2 - Incorporated control panel
3 - Radio receiver
4 - Internal pushbutton array
5 - Safety photocells
6 - Rubber safety section
7 - Transmission arm
8 - Release mechanism
9 - Antenna
10 - Flashing light
11 - Key-operated selector switch

GENERAL SPECIFICATIONS

Description

Automatic traction system for overhead and sectional doors.
Designed and built entirety by CAME Cancelli automatici S.p.A., in full compliance with current safety standards. IP 40 protecting rating.
Guaranteed for 24 months, unless tampered with by unauthorized personnel.

Versions

V900E - Encoder controlled 24V (D.C.) gearmotor with built-in control panel; 230V AC power with 50÷60Hz frequency; 130W max. motor power and up to 500N in traction power.

Sliding rails

V0679 - Rain unit with chain L=3,02 m:
- for counterweighted overhead doors up to 2,40 m height;
- for spring-balanced overhead doors up to 2,25 m height;
- for sectional doors* up to 2,20 m height

* see page 4.

Completion accessories

V201 - Transmission adapter arm for counterweighted overhead doors (it substitutes the arm supplied), see p.5.

Optional accessories

V121 - Cable release device and transmission for connection to the lock.
V122 - Improved transmissionarm for sectional gates, see pg. 5;

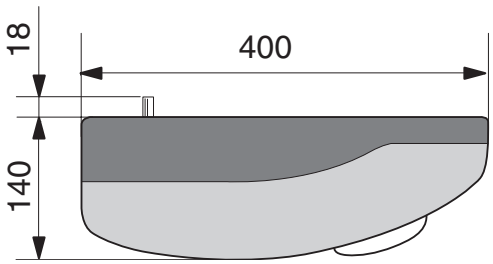
Attention! *to insure easy installation and conformance with current safety, norms, we raccomend installation of CAME safety and control accessories.*

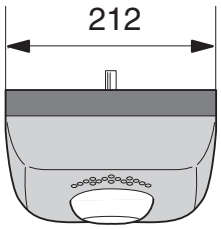
TECHNICAL SPECIFICATIONS

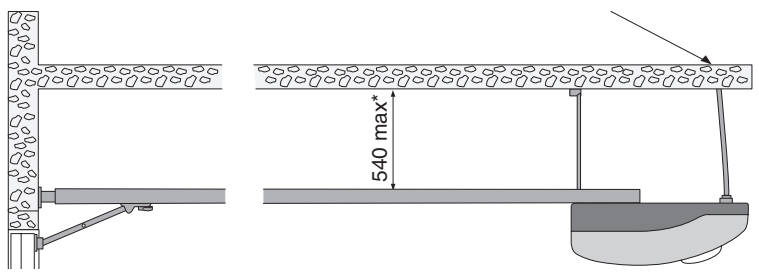
GEAR MOTOR	POWER SUPPLY	MOTOR ABSORPTION	POWER	TRACTION FORCE	DUTY CYCLE	AVERAGE SPEED	WEIGHT
V900E	230V a.c.	6A max.	130W max.	500N	50 %	6 m/min	5,7 kg

24V DC gear motor; reduction gear unit housed in a die-cast aluminium casing. The unit features an irreversible reduction gear with worm screw and helicoidal. Permanently lubricated with liquid grease.
ABS automation container and cover with window for lamp to illuminate the area. The unit is mounted on and supported by the sliding rail.
Built-in electric control panel.
Electronically run (Encoder) end-stop.
Galvanised cold-formed plate sliding rail; front tensioning and fastening wall terminal; ABS back motor unit support and connector terminal. The rail has a built-in emergency release device and the transmission arm's hook; the rail has holes for possible connection of additional brackets.
Chain sliding system.

EXTERNAL DIMENSIONS



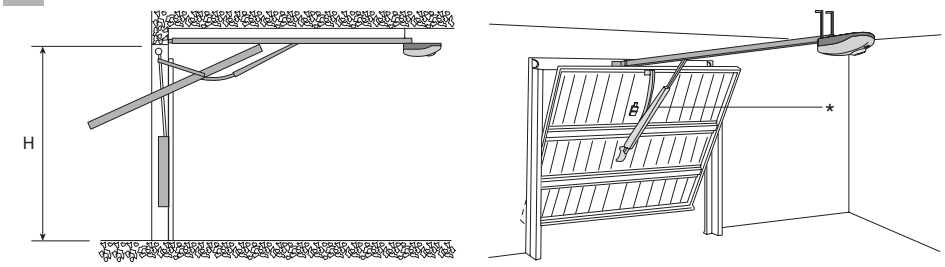




* For heights exceting 540 mm, it is necessary to use additional brackets or struts.

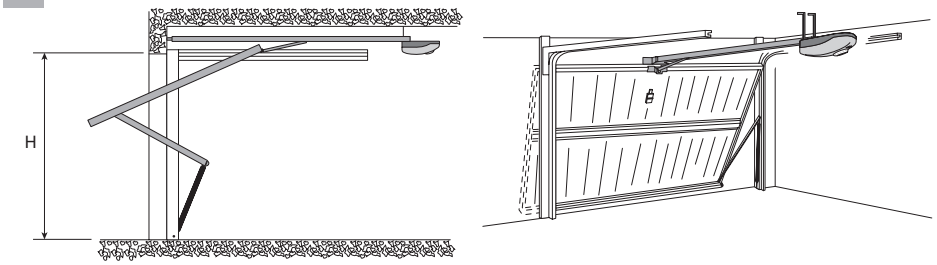
EXEMPLES OF APPLICATIONS

A



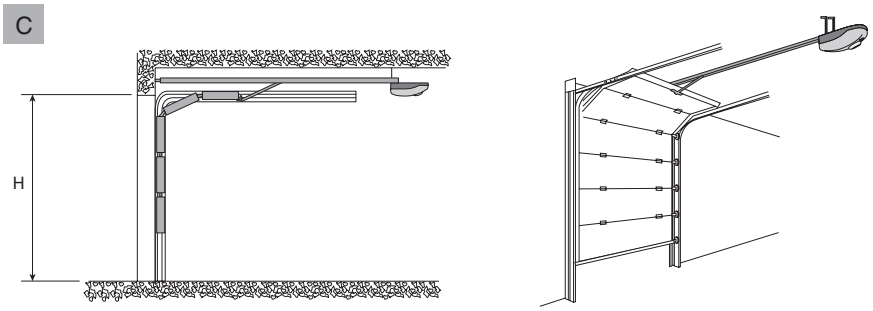
COUNTERWEIGHTED OVERHEAD DOOR, outward vertical stroke and partially inward entry type

B

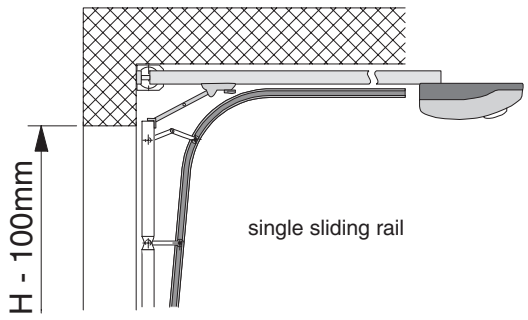


SPRING-BALANCED OVERHEAD DOOR, spring balanced, outward vertical stroke and totally inward entry type

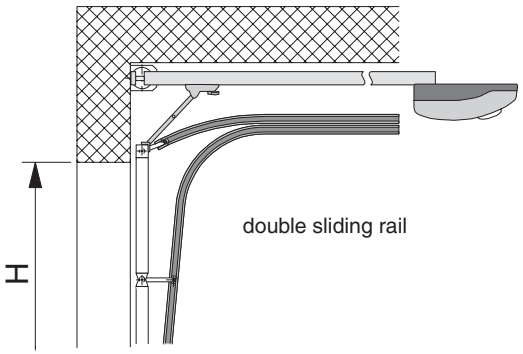
C



SECTIONAL DOOR



single sliding rail

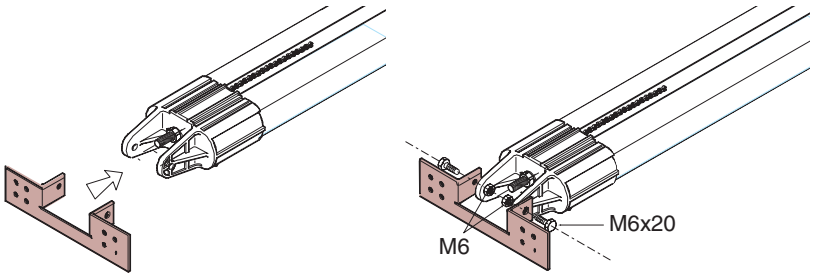


double sliding rail

UNIT ASSEMBLY

PREARRANGEMENT OF TRANSMISSION RAIL

- Fasten the bracket to the transmission guide's front terminal with the screws provided;



TRANSMISSION RAIL FASTENING

- Fasten the transmission rail in the following manner:

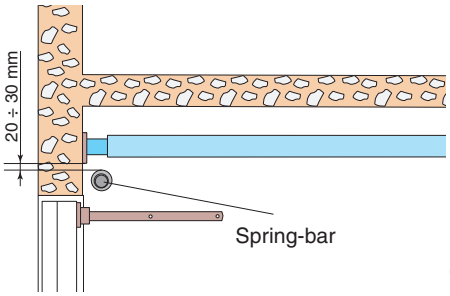
a) for sectional doors C-type (see ref. p.4), fasten the bracket directly over the spring-release coiling shaft using adequate dowels and screws; if the distance between the coiling shaft and the gate's upper ledge is between 30 and 60 cm, apply the V122 arm (read the technical documentation provided with the accessory);
b) for A-B-type overhead doors (see ref. p.4), verify the maximum door sliding point (fig.2) and consequently fasten the bracket on high with adequate screws or rivets.

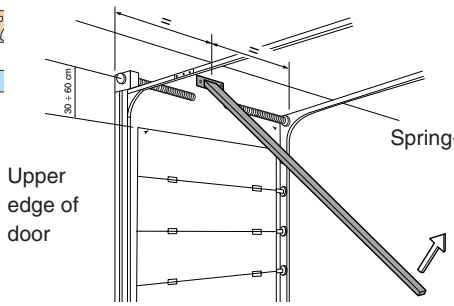
N.B.: for counterweighted overhead doors, partial entry, it is necessary to use the adapter arm V201 (read the technical documentation provided with the accessory).
- Raise and set the guide horizontally to establish the distance from the ceiling; then fasten the angle sections or fastening brackets provided (cutting off any excess part) to the rail's back terminal. N.B. the transmission guide has three ø7 holes for further fastening should it prove necessary to reinforce the unit.

- Lift, level and fix the rail to the ceiling.

- Prepare the chase for electric wiring.

Fig.1





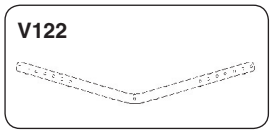
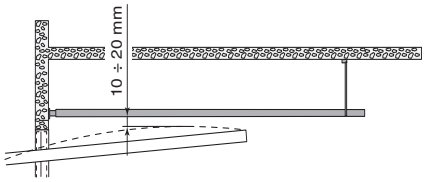
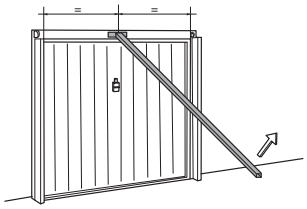
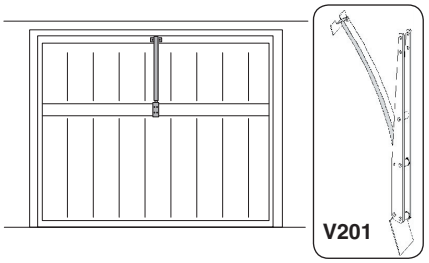
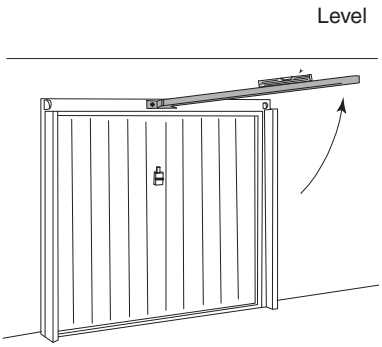


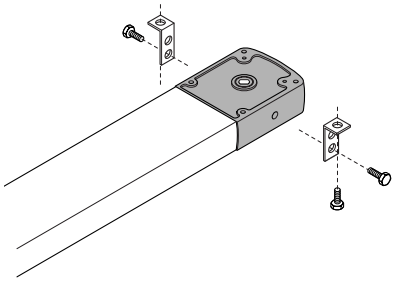
Fig.2

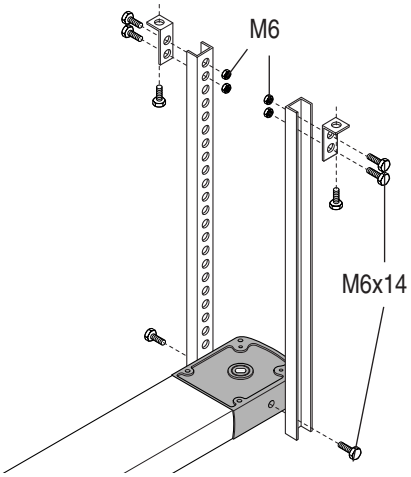


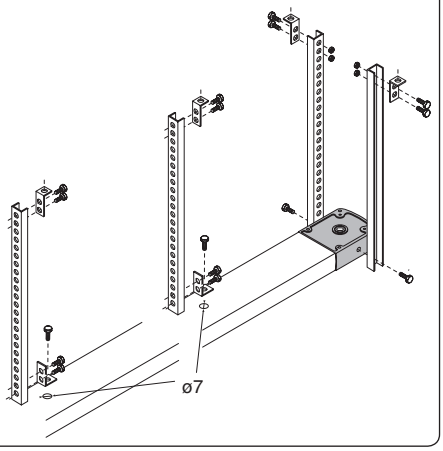








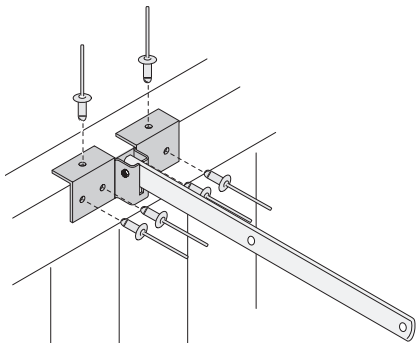


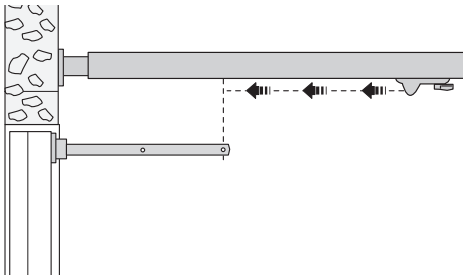


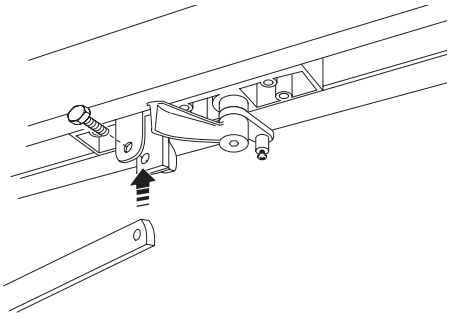
SLIDING LEVER FASTENING

- Centrally fix the transmission arm to the door's upper crosspiece with the rivets provided (or possible screws);
- Move the sliding runner and hook it to the transmission arm after removing the preset screw.

N.B.: if the adapter arm (V201) is used, hook the carriage to the sliding runner.

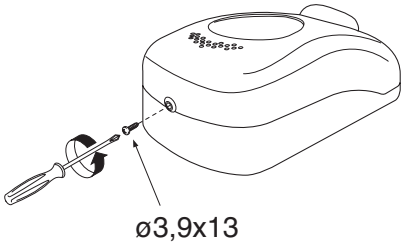


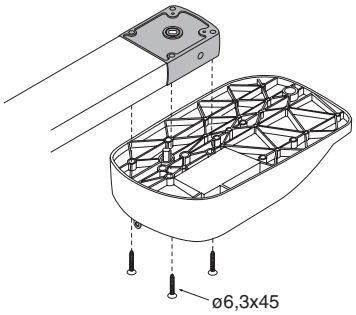


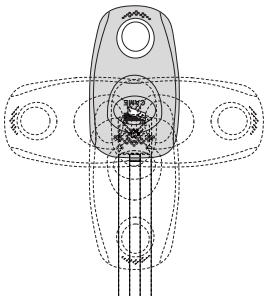


GEARMOTOR INSTALLATION

- Remove the automation container cover by unscrewing the ø3.9x13 screw;
- Fasten the gear motor to the sliding rail's back terminal in the desired position with the three ø6.3x45 screws provided;

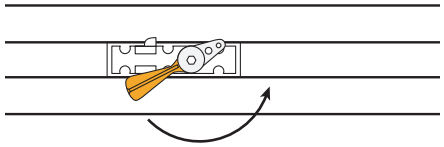




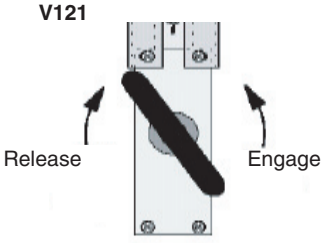


RELEASING THE GEARMOTOR

- Turn the release handle as illustrated; the release will re-hitch automatically at the first manoeuvre, by returning the lever to its start position.
- If there is a V121 cable release device (read the technical documentation accompanying the accessory for assembly instructions), turn the handle as illustrated to lock and the gearmotor.



V121



ZL56 CONTROL PANEL

Technical description

The card is powered with a 230V (AC) power outlet and its input is protected with a 1.6A line fuse. The motor is protected with a 7,5A fuse. Control systems are powered by low voltage and protected by a 315mA fuse. The total power consumption of 24V accessories (which are protected by a 3.15A fuse) must not exceed 40W.
Fixed operating time of 80 sec.

Safety

Photocells can be connected to obtain:
- Re-opening during the closing cycle (2-C1), the photocells on detecting an obstacle while closing the door, cause the movement direction to be reversed until opening is complete;
- Total stop (1-2), stop of the garage-type door with the exclusion of the automatic closing cycle. To resume the movement, use the pushbutton or the radio control;
- Amperometric safety device: when an obstacle is encountered, the amperometric device causes the reversal of movement direction during both opening and closing.
N.B.: if an obstacle is detected three times, the door wing stops during aperture, and automatic closure is disactivated.
Use the keyboard or the radio transmitter to resume movement of the bar.

Other functions

- Automatic closing. The automatic closing timer is automatically activated at the end of the opening cycle. The preset, adjustable automatic closing time is automatically interrupted by the activation of any safety system, and is deactivated after a STOP command or in case of power failure;
- Type of command:
-«open-stop-close-stop» for pushbutton and radio transmitter;

Accessories connected

- Courtesy Light (24V-25W). A light that illuminates the manoeuvring zone; after an opening command, the light remains on for a fixed time of 2 minutes and 30 seconds.

Optional accessories

- Flashing signal light when gate is in motion (24V-25W max.), connect it to terminal blocks 10-E;
- AF radiofrequency board (see table on pg. 24) for remote control.

Adjustments

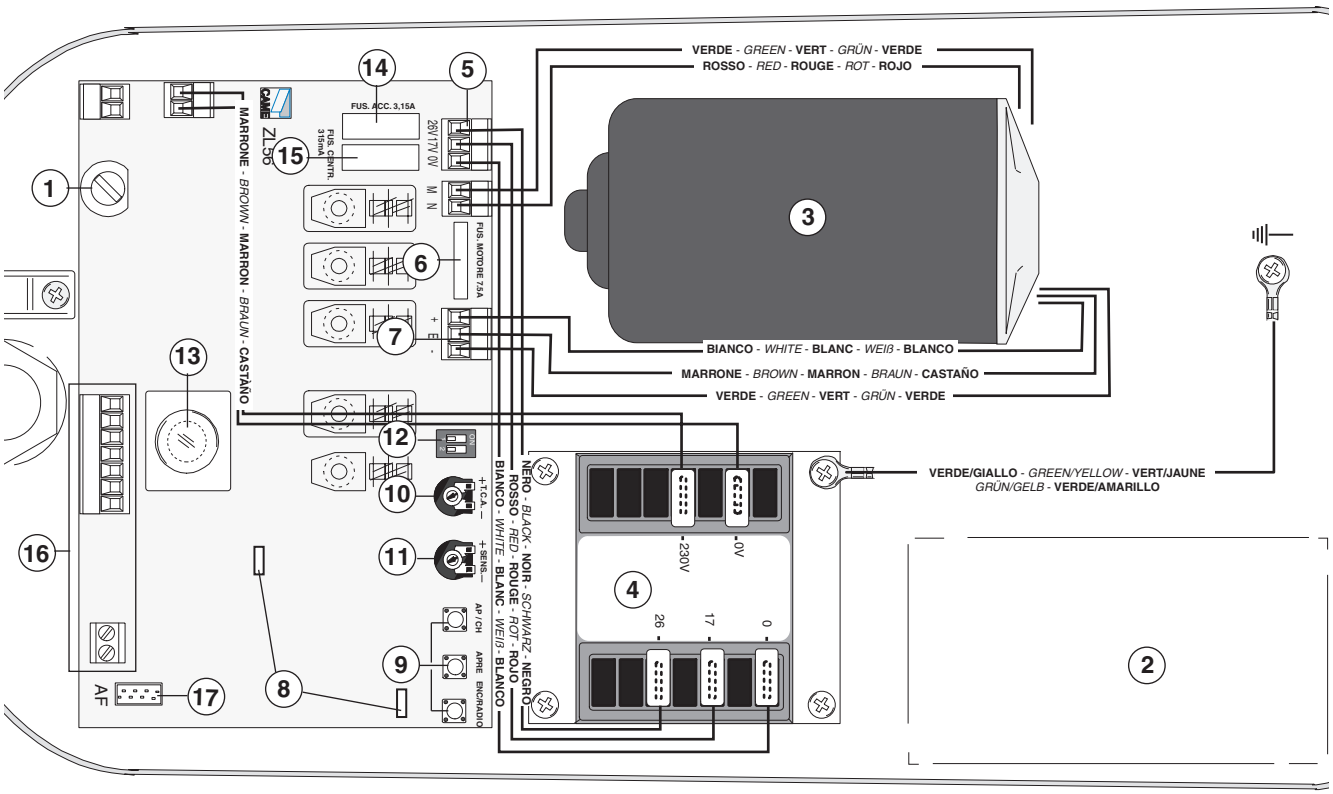
- Trimmer TCA = adjustment automatic closing time;
- Trimmer SENS = adjustment sensitivity of amperometric safety system.

Important: after powering up the system or after a total-stop, the 1st movement is always the opening manoeuvre. During this stage it is not possible to close the door. It is possible to re-close it after the door completes the opening manoeuvre.

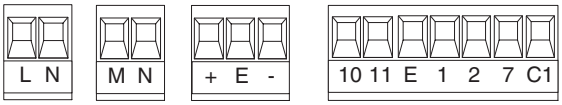
⚠ ***Caution!*** *Shut off the mains power and disconnect the batteries before servicing the inside of the unit.*

MAIN COMPONENTS

1 - Line fuse, 1,6A
2 - Location for emergency batteries
3 - Gearmotor
4 - Transformer
5 - Transformer connection terminal board
6 - Motor fuse, 7,5A
7 - Gearmotor and encoder connection terminal board
8 - Functions control LED
9 - Buttons for saving radio code, manoeuvre and encoder programming
10 - Trimmer TCA: automatic closing time adjustment
11 - Trimmer SENS: amperometric sensitivity adjustment
12 - 2-dip function switch
13 - Courtesy Light
14 - Accessoires fuse, 3,15A
15 - Central control unit fuse, 315mA
16 - Accessory and control connection terminal board
17 - “AF” radiofrequency board socket


VERDE - GREEN - VERT - GRÜN - VERDE
ROSSO - RED - ROUGE - ROT - ROJO
BIANCO - WHITE - BLANC - WEIß - BLANCO
MARRONE - BROWN - MARRON - BRAUN - CASTAÑO
VERDE - GREEN - VERT - GRÜN - VERDE
VERDE/GIALLO - GREEN/YELLOW - VERT/JAUNE
GRÜN/GELB - VERDE/AMARILLO
MARRONE - BROWN - MARRON - BRAUN - CASTAÑO
NERO - BLACK - NOIR - SCHWARZ - NEGRO
ROSSO - RED - ROUGE - ROT - ROJO
BIANCO - WHITE - BLANC - WEIß - BLANCO
ZL56
FUS. ACC. 3,15A
FUS. CENTR. 315mA
FUS. MOTORE 7,5A
230V
0V
26
17
0
AP / CH
APRE
ENC/RADIO
AF

ELECTRICAL CONNECTIONS



N.B. All the contacts and push-buttons normally closed (N.C.) that are not used must be short-circuited.

L
N — 230V (a.c.) power supply

M
N — 24 (d.c.) motor

+ 10
- 11 — Powering accessories (max 40W)
- 24V (A.C.) with power supply at 230V (A.C.)
- 24V (D.C.) with power supply at 24V (A.C.)

10
E — 24V output in motion (e.g. 25 W max. flashing light)

1
2 — Pushbutton stop (N.C.)

2
C1 — Contact (N.C.) for «re-aperture during closure»

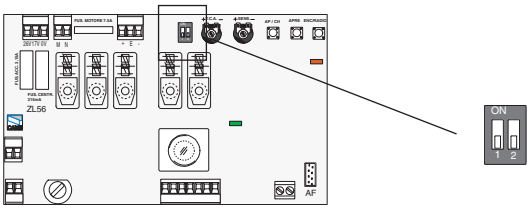
2
7 — Pushbutton for commands (N.O.) “OPEN-STOP-CLOSE-STOP”

Antenna connection

SELECTION OF FUNCTIONS

1 ON - Encoder programming; it enables the procedure for the calibration of the opening and closing end-stop.

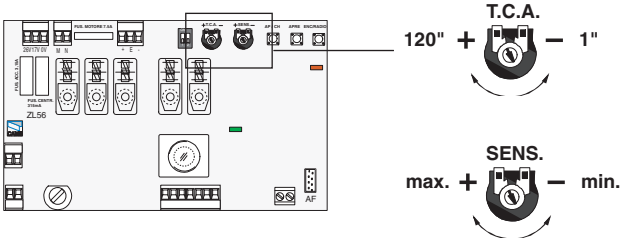
2 Not used, keep the dip in position OFF.



ADJUSTMENTS

Trimmer T.C.A. = Automatic closing time adjustment. N.B.: by adjusting the minimum, the automatic closure function is excluded.

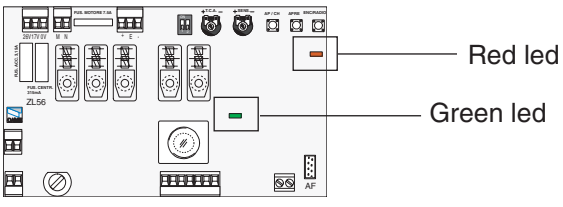
Trimmer SENS. = Amperometric sensitivity adjustment.



FUNCTIONS CONTROL LED

RED LED:

- light on, memorizing of the limit-switch (encoder);
- slow intermittent light, memorizing of the radio board and automatic-closing count;
- rapid intermittent light, signals the presence of an obstacle or an anomaly on the device connected to contacts 2-C1.



GREEN LED:

- constant light, signals the power supply in the control board (goes off when power not supplied and each time the total stop button is pressed).

ENCODER PROGRAMMING

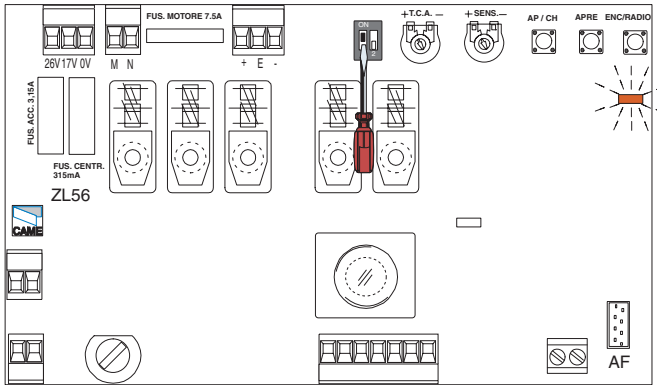
IMPORTANT: READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING WITH PROGRAMMING.

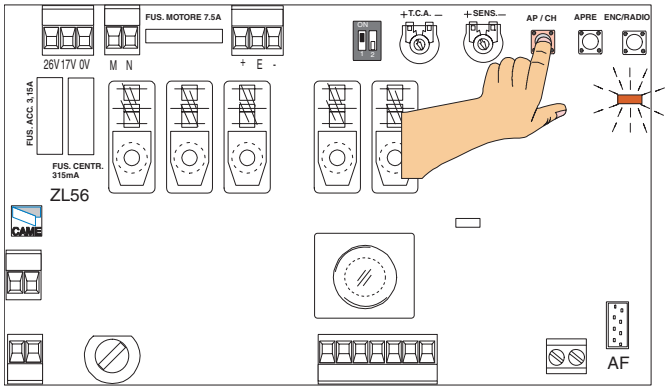
closure limit switch

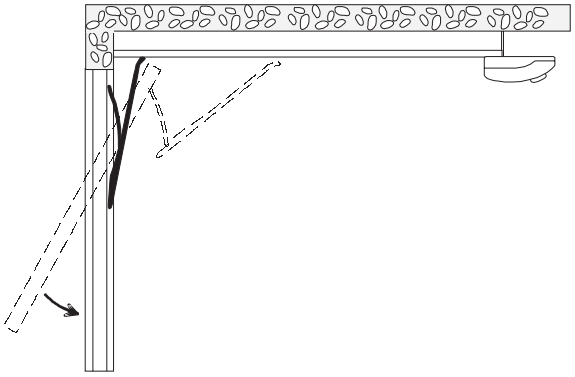
Set dip-switch 1 to ON: the red LED comes on, at slow intermittence.

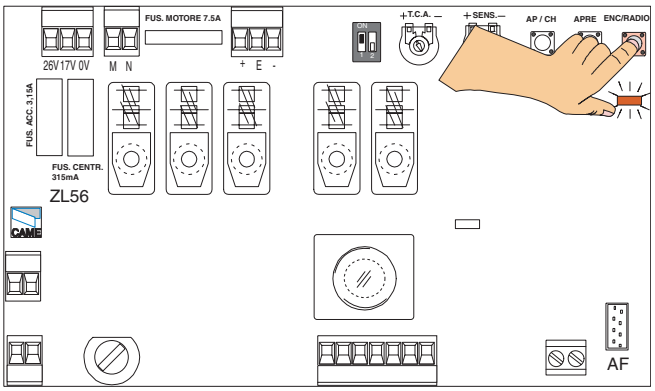
Keep the “AP-CH” button pressed and allow the overhead door to reach the limit switch when it closes.

Press and release the “ENC/RADIO” button: the signalling LED remains on to indicate thet the closing end-stop has been saved.









opening limit switch

Keep the “APRE” button pressed and allow the door to open fully.

Press and release the “ENC/RADIO” button: the signalling LED remains on to indicate that the closing end-stop has been saved.

With the door open, position the end-stop (in the transmission guide) on the sliding runner and secure it with the screws.

Set dip-switch 1 to OFF.

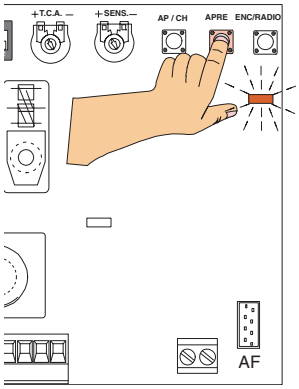
Note: if the LED indicator begins to flash rapidly after dip 1 has been reset, it is necessary to repeat the procedure from the start.

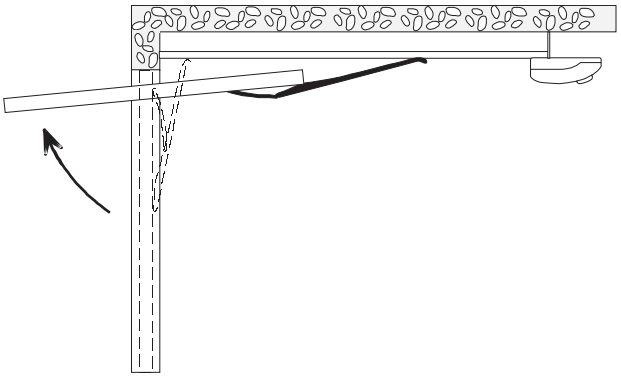
NOTES

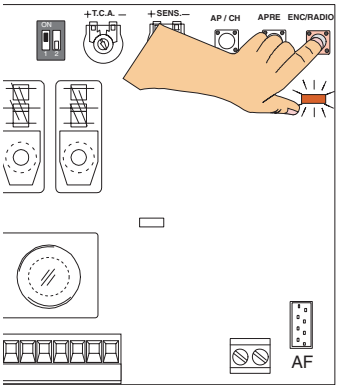
After having programmed and switched dip 1 to OFF, use the “AP/CH” key to check proper gate opening and closing.

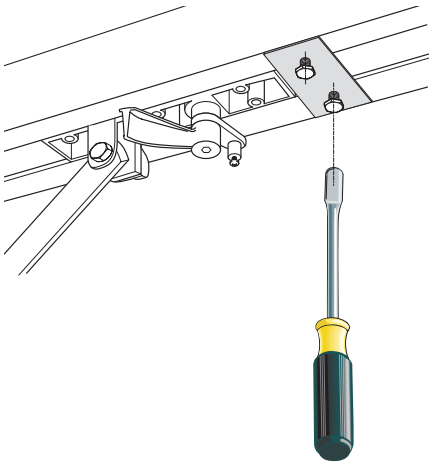
During programming, make sure the closing end-stop has been previously memorised, otherwise the data will not be memorised.

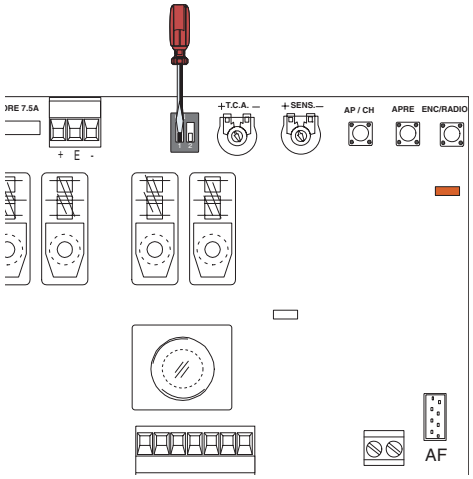
Should the encoder malfunction or were it incorrectly connected to the opening or closing control, the motor will move briefly and then stop. The LED indicator will indicate the irregularity by flashing slowly and continuously. In this case it is necessary to disconnect power supply from the control panel and then reconnect it.











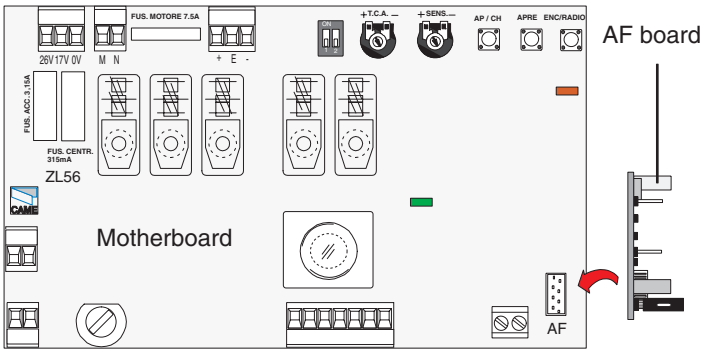
PROCEDURE

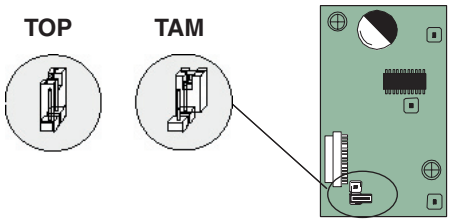
A - Insert an AF card**.

B - Encode transmitter/s.

C - Store code in the motherboard.

A - **AF board insertion**





(**) On AM transmitters operating at 433.92 MHz (TOP and TAM series), position the jumper connection on circuit card AF43S as shown on the sheet.

Frequency / MHz	Radiofrequency board	Transmitter
FM 26.995	AF130	TFM
FM 30.900	AF150	TFM
AM433.92	AF43S / AF43SM	TAM / TOP**
	AF43SR	ATOMO

⚠ The AF board should ALWAYS be inserted when the power is off because the motherboard only recognises it when it is powered.

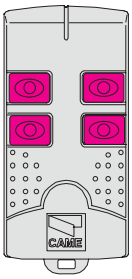
B - **Transmitter encoding**

ATOMO

AT01 - AT02 - AT04

see instruction sheet inside the pack of AF43SR circuit card

TAM



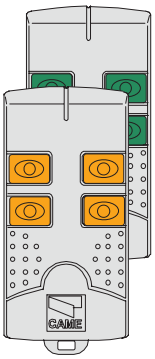
T432
T434
T438

see instruction sheet inside the pack

TFM

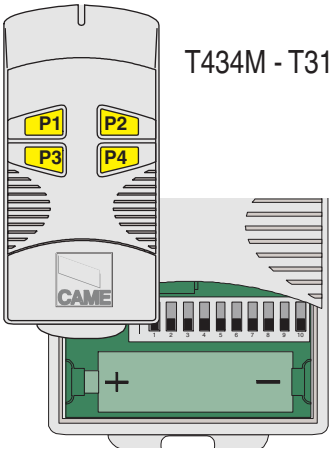
T132
T134
T138

T152
T154
T158



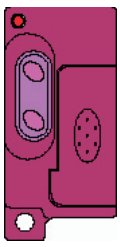
TOP

T434M - T314M



set code only

T432S

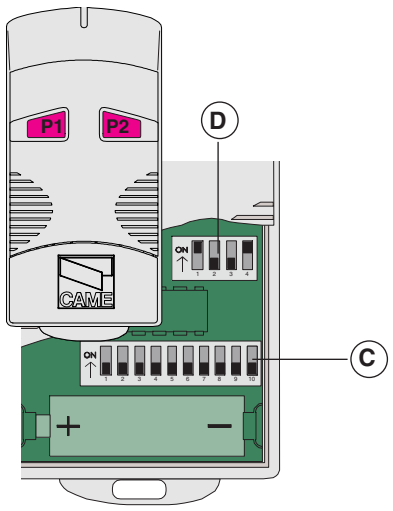


T432SA - T434MA

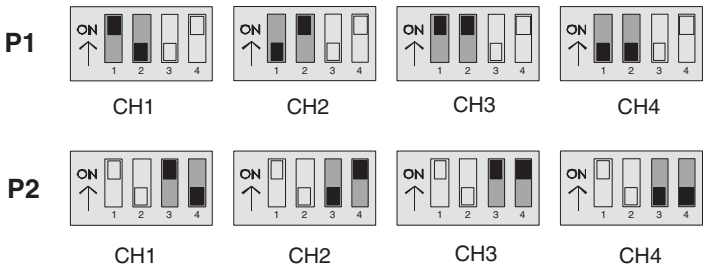
see instructions on pack

T432M - T312M

TOP



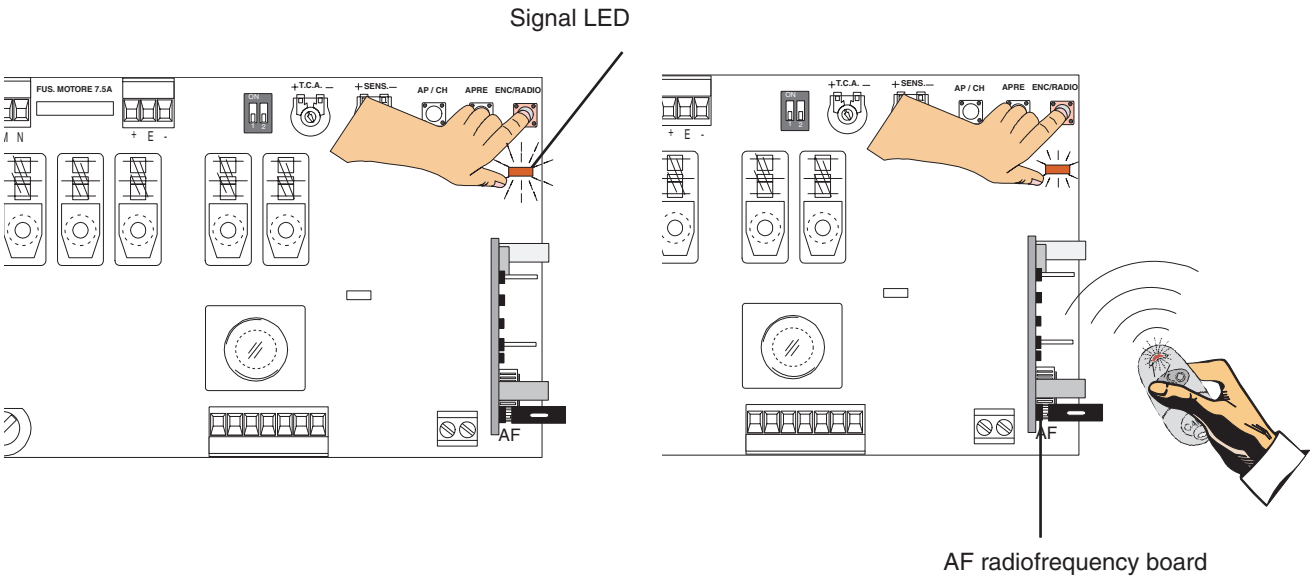
set the code to dip-switch C and channel to D (P1=CH1 and P2=CH2, default setting)



C - **Code storage**

- Keep the “ENC/RADIO” key pressed on the base card (the signal LED will flash), and with a key on the transmitter the code is sent, the LED will remain lit to signal the successful saving of the code.

N.B.: if you wish to change the code on your transmitters in the future, simply repeat the procedure described above.



PERIODIC MAINTENANCE

The unit does not require specific maintenance. However, it is a good idea to periodically oil the sliding wheels and the pins of the door arms, and to check the chain’s tension.

MANUFACTURER'S DECLARATION

As per Enclosure II B of Machinery Directive 98/37/CE

Enclosed with the technical documentation (the original copy of the Declaration is available on request)

Date of the present declaration 07/12/2001

The representatives of

CAME Cancelli Automatici S.p.A.
via Martiri della Libertà, 15
31030Dosson di Casier - Treviso - ITALYtel
(+39) 0422 4940 - fax (+39) 0422 4941
internet: www.came.it - e-mail: info@came.it

Hereby declare, under their own respons ibility, that the product/s called ...

V900E
V0679 V201 V121 V122

... comply with the Italian National Legal Provisions that transpose the following Community Directives (where specifically applicable):

MACHINERY DIRECTIVE 98/37/CE
LOW VOLTAGE DIRECTIVE 73/23/EEC - 93/68/EEC
LECTROMAGNETIC COMPATIBILITY DIRECTIVE 89/336/EEC - 92/31/EEC
R&TTE DIRECTIVE 1999/5/CE

Also, they furthermore represent and warrant that the product/s that are the subject of the present Declaration are manufactured in the respect of the following main harmonized provisions:

EN 292 PART 1 AND 2	MACHINERY SAFETY.
EN 12453	INDUSTRIAL, COMMERCIAL AND OTHER CLOSING MECHANISMS.
EN 12445	INDUSTRIAL, COMMERCIAL AND OTHER CLOSING MECHANISMS.
EN 60335 - 1	SAFETY IN APPARATUSES FOR HOME USE.
EN 60204 - 1	MACHINERY SAFETY.
EN 50081 - 1 AND 2	ELECTROMAGNETIC COMPATIBILITY.
EN 50082 - 1 AND 2	ELECTROMAGNETIC COMPATIBILITY.

IMPORTANT CAUTION!
It is forbidden to market/use product/s that are the subject of this declaration before completing and/or incorporating them in total compliance with the provisions of Machinery Directive 98/37/CE

Signatures of the Representatives

TECHNICAL MANAGER
Mr. Gianni Michielan

MANAGING DIRECTOR
Mr. Paolo Menuzzo

Specific technical documentation on the products is available on request!

All data checked with the maximum care. However, no liability is accepted for any error or omission.

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